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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,837	01/29/2004	Keishi Matsumoto	12014-0025	2346
22902	7590	07/25/2005	EXAMINER	
CLARK & BRODY 1090 VERMONT AVENUE, NW SUITE 250 WASHINGTON, DC 20005			HEWITT, JAMES M	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/765,837	Applicant(s) MATSUMOTO ET AL.	
	Examiner James M. Hewitt	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1/29/04, 8/3/04 and 4/25/05.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/29/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

Applicant is urged to provide complete translations of each of the references submitted in the IDS filed 1/29/04.

### ***Claim Objections***

Claims 10 and 15 are objected to because of the following informalities:

In claim 10 line 2, "the lubricating oil" lacks antecedent basis. It seems as if the phrase "or the lubricating oil" should be deleted.

In claim 15 lines 1-2, "the lubricant layer" lacks antecedent basis. It seems as if the phrase "the lubricant layer in liquid form" should be deleted.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al (WO 01/16516 A1).

From Yamamoto et al's disclosure from col. 3 line 55 - col. 20, line 41 in US Patent No. 6,679,526 B2, which corresponds directly to the WO/0116516 A1 reference, it is clear that Yamamoto et al (WO 01/16516 A1) discloses all the limitations posited in claims 1-15.

To specifically address the limitations in claims 1 and 2 requiring the coatings to exhibit different states at given temperatures, since the types of coatings/layers set forth in claims 10 and 15 qualify, and Yamamoto et al discloses the types of coatings/layers set forth in claims 10 and 15, Yamamoto et al thus meets these requirements of claims 1 and 2.

Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuru et al (US 6,027,145).

From Tsusu et al's disclosure from col. 16, line 36 - col. 22, line 44, it is clear that Tsuru et al (WO 01/16516 A1) discloses all the limitations posited in claims 1-15.

To specifically address the limitations in claims 1 and 2 requiring the coatings to exhibit different states at given temperatures, Tsuru et al's solid lubricating layer (with

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additive) as disclosed is considered to meet these requirements or at least be inclusive of types of lubricants that meet the claimed requirements.

Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative as being obvious over Tsuru et al (JP 08-105582).

Refer to the abstract of the publication. The disclosed layers are understood to exhibit the properties and contain the elements posited in claims 1-15. And those properties and elements that may not be disclosed by the reference are considered only to be obvious differences. For instance, with respect to claims 6-8 and 13, it is well known to use a chemical conversion treatment with a phosphate or oxalate as a preliminary surface roughening treatment to provide better adhesion for additional overlying layers.

Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Goto et al (US 6,659,509 B2).

From Goto et al's disclosure from col. 4, line 24 - col. 14, line 46, it is clear that Goto et al discloses all the limitations posited in claims 1-15.

To specifically address the limitations in claims 1 and 2 requiring the coatings to exhibit different states at given temperatures, since the types of coatings/layers set forth in claims 10 and 15 qualify, and Goto et al discloses the types of coatings/layers set forth in claims 10 and 15, Goto et al thus meets these requirements of claims 1 and 2.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Goto et al (US 6,746,057 B2).

From Goto et al's disclosure from col. 3, line 22 - col. 16, line 2, it is clear that Goto et al discloses all the limitations posited in claims 1-15.

To specifically address the limitations in claims 1 and 2 requiring the coatings to exhibit different states at given temperatures, since the types of coatings/layers set forth in claims 10 and 15 qualify, and Goto et al discloses the types of coatings/layers set forth in claims 10 and 15, Goto et al thus meets these requirements of claims 1 and 2.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Goto (US 6,827,996 B2).

From Goto's disclosure from col. 3, line 12 - col. 12, line 26, it is clear that Goto discloses all the limitations posited in claims 1-15.

To specifically address the limitations in claims 1 and 2 requiring the coatings to exhibit different states at given temperatures, since the types of coatings/layers set forth in claims 10 and 15 qualify, and Goto discloses the types of coatings/layers set forth in claims 10 and 15, Goto thus meets these requirements of claims 1 and 2.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Goto et al (US 6,869,111 B2).

From Goto et al's disclosure from col. 3, line 49 - col. 16, line 21, it is clear that Goto et al discloses all the limitations posited in claims 1-15.

To specifically address the limitations in claims 1 and 2 requiring the coatings to exhibit different states at given temperatures, since the types of coatings/layers set forth

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in claims 10 and 15 qualify, and Goto et al discloses the types of coatings/layers set forth in claims 10 and 15, Goto et al thus meets these requirements of claims 1 and 2.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

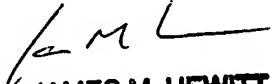
Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Hewitt whose telephone number is 571-272-7084. The examiner can normally be reached on M-F, 930am-600pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**JAMES M. HEWITT**  
**PRIMARY EXAMINER**